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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/665,306      | 09/22/2003  | Francois Aquino      | 117240              | 6191             |

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| EXAMINER |
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TRAN, CHUC

|          |              |
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| ART UNIT | PAPER NUMBER |
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2821

DATE MAILED: 03/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/665,306 | <b>Applicant(s)</b><br>AQUINO, FRANCOIS |  |
|                              | <b>Examiner</b><br>Chuc D. Tran      | <b>Art Unit</b><br>2821                 |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 September 2003.  
 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.  
 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 1-12 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All b) ☐ Some \* c) ☐ None of:  
 1. ☒ Certified copies of the priority documents have been received.  
 2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims 1-4 and 6-9. Therefore, the “tower crane, folding tower crane” in claims 1, 3-4, 6-7 and 9; the “mounting plate” in claims 2 and 6; and the “sheet” in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "5" and "9" in (Fig. 2-7) have both been used to designate as the “arm

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support with transmission cable run inside". Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

It is not clear how to figure out or to understand the “tower crane with the arm support to be connected to the lifting machine” as set in the drawing 1 and 2. Applicant is encouraged to implement this drawing in the interest of improving it’s clarity

### *Claim Objections*

4. Claims 3-4 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

In claims 3 and 4, the limitation angular positions (A, B, C and D) of the support arm (5) already disclosed in the parent claim 1.

5. Claims 2-4, 6 and 9-10 are objected to because of the following informalities:

Claim 2, line 4, “a” (head (10)) change to - - the - -;

Claim 3, line 3, “a” (crane (2)) change to - - the tower - -;

Claim 4, line 2, “a” (folding tower crane) change to - - the - -;

Claim 4, line 5, 9, 11 and 12, “the crane” change to - - the tower crane - -;

Claim 6, line 6, “a” (mounting plate) change to - - the - -;

Claim 7, line 3, “the crane” change to - - the tower crane - -;

Claim 9, line 2, “a” (U shape) change to - - the - -;

Claim 9, line 3, “the crane” change to - - the tower crane - -;

Claim 10, line 3, “a” (vertical) change to - - the - -.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claim 1 and 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Eitel (USP. 4,721,213).

Regarding claim 1, Eitel disclose a radio control antenna support arm for lifting machinery comprising:

- a tower crane (Fig. 1), a lifting machine (12) can occupy at least two separate angular position (Fig. 1), a vertical pivoting axis (28), the support arm (29, 33) comprising a head (36) (Fig. 1) wherein a radio control antenna (65) mounted on it (Fig. 1) (Col. 3, Line 1, 15).

Regarding claims 3-5, Eitel disclose that the support arm (29, 33) comprise a folded back position (Fig. 1), and the angular position between 0 degree, 60 degree, and 120 degree (Fig. 1).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. Claims 2 and 6-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eitel in view of Halgrimson (USP. 4,607,389).

Regarding claims 2 and 6-12, Eitel disclose a radio control antenna support arm for lifting machinery as set forth in the claims except: a transmission cable, a mounting plate, an upper and lower pin and base part for the antenna box mounted on. Halgrimson disclose communication system comprising a transmission cable (48, 50), a mounting plate (36) with transmission cable run inside (Fig. 2), an upper and lower pin (44) and base part (22) (Fig. 2). Thus, it would have been obvious to one of ordinary skill in the art to provide the antenna assembly with transmission cable, a mounting plate, an upper and lower pin and base part for the antenna box to be mounted on the crane tower in order to provide a strong signal for better communication between workers as described in (Halgrimson Abstract).

*Citation of relevant Prior Art*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Brunner (USP. 4,329,692) disclose a radar antenna.

Prior art Sessions (USP. 6,397,062) disclose multiple antenna system.

Prior art Baillargeon (USP. 6,265,983) disclose falls protection system.

Bachman et al (USP. 6,474,922) disclose remote operation auxiliary hoist control and precision load positioner.

Prior art Divine et al (USP. 6,276,488) disclose crane extension et al.

Prior art Kroeger (USP. 5,205,544) disclose remotely controlled winch.

Prior art Bromell et al (USP. 4,179,233) disclose vertical motion compensated crane

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apparatus.

Prior art Mertel (USP. 6,677,914) disclose tunable antenna system.


***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuc D. Tran whose telephone number is (571) 272-1829. The examiner can normally be reached on M-F Flex hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TC  
March 9, 2005

  
**WILSON LEE**  
**PRIMARY EXAMINER**